Patent Claims:

1. Solenoid valve, in particular for motor vehicle wheel slip control systems, including a valve housing furnished with pressure fluid channels in which a valve tappet is movably guided that is directed with its valve closure member to a valve seat, including a magnet armature fitted to the valve tappet and performing a stroke movement on a magnet core arranged in the valve housing in dependence on the electromagnetic energization of a valve coil secured to the valve housing, and including a spring that positions, in the electromagnetically non-energized valve position, the magnet armature at a defined axial distance from the magnet core in such a fashion that the magnet armature is separated from the magnet core by a space, to what end the spring is supported with one end on the magnet core,
c h a r a c t e r i z e d in that the other end of the spring (6) abuts on an area of the valve tappet (7) remote from the valve seat (8), said valve tappet being arranged in a bore of the magnet armature (5) so as to be adjustable for the variation of the preloading force of the spring (6).

2. Solenoid valve as claimed in claim 1,
c h a r a c t e r i z e d in that the adjustment of the valve tappet (7) in the bore of the magnet armature (5) takes place by means of a frictional engagement of the valve tappet (7) and the magnet armature (5).

3. Solenoid valve as claimed in claim 1 or 2,
c h a r a c t e r i z e d in that the valve tappet (7) has a many-sided profile, in particular a triangular profile, in the contact area with the bore of the magnet armature (5), and a free space is maintained between the peripheral surface of the many-sided profile and the bore of the magnet armature (5) permitting a hydraulic pressure balance on either side of the magnet armature (5).

4. Solenoid valve as claimed in claim 3,
c h a r a c t e r i z e d in that outside its contact area with the bore of the magnet armature (5), the valve tappet (7) has a step (15) on which the end of the spring (6) remote from the magnet core (3) is supported.

5. Solenoid valve as claimed in claim 4,
c h a r a c t e r i z e d in that adjacent to the step (15) in the direction of the magnet core (3) is a guiding pin (16) that extends into the spring (6) configured as a helical spring, to what end the diameter of the guiding pin (16) is adapted to the inside diameter of the helical spring in consideration of a radial clearance in order to prevent buckling of the spring (6).

6. Solenoid valve as claimed in claim 5,
c h a r a c t e r i z e d in that a transition area (17) is provided between the step (15) and the guiding pin (16) for the operative and/or positive attachment of the one end of the spring (6).

7. Solenoid valve as claimed in claim 6,
c h a r a c t e r i z e d in that the transition area (17) is an annular groove into which the one end of spring (6) snaps.

8. Solenoid valve as claimed in claim 1,
c h a r a c t e r i z e d in that the preloading force of the spring (6) to be adjusted corresponds to a weight (20) applied to the end of spring (6) remote from the valve tappet (7).

9. Solenoid valve as claimed in claim 8,
c h a r a c t e r i z e d in that after the desired preloading force of the spring (6) is reached by way of displacement of the valve tappet (7) in the magnet armature (5), the weight (20) has been lifted by the stroke of an operational clearance (X) necessary for operation of the valve.

10. Solenoid valve as claimed in claim 9,
c h a r a c t e r i z e d in that the weight (20) is guided in a low-friction manner in a stepped bore (21) of a device (19) in which the magnet armature (5) equipped with the valve tappet (7) and the spring (6) is supported on the end surface remote from the weight (20), and the end of the spring (6) remote from the valve tappet (7) bears against the weight (20) in the stepped bore (21).